

REMARKS

Claims 1-20 are currently pending. By this Amendment, claims 1, 5, 8, 11, 15 and 18 have been amended, without acquiescence in cited basis for rejection or prejudice to pursue in a related application. No new matter has been added.

Interview Summary

Applicant gratefully thanks the Examiner for granting a telephone interview on March 14, 2008. Claim 1 and prior art reference Masatake were discussed. The claimed invention was explained. The Examiner suggested that the claimed invention should be clarified with other embodiments described in the specification, but no agreement was reached regarding any amendments.

Claim Rejections Under 35 U.S.C. §112

Claims 1-20 were rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential steps. Applicant respectfully disagrees. However, the claims have been amended to recite that scanning is “to test the integrated circuit.” This amendment is made for clarification of what is already in the claims and does not further limit the claims.

For at least the foregoing reasons, Applicant respectfully requests that the § 112 rejection for claims 1 and 11, and their respective dependent claims, be withdrawn.

Claim Rejections Under 35 U.S.C. §102

Claims 1-5, 11-15 and 21-23 were rejected under 35 U.S.C. §102(a) as anticipated by Masatake (JP 2003-202362).

Applicant respectfully traverses.

Independent claim 1 recites the following limitations:

scanning a first test data from an input pin into a first scan chain during a first state of a clock cycle to test the integrated circuit, wherein the first scan chain comprises at least one positive triggered circuit element and at least one negative triggered circuit element; and

scanning a second test data from the input pin into a second scan chain during a second state of the clock cycle to test the integrated circuit, wherein the

second scan chain comprises at least one positive triggered circuit element and at least one negative triggered circuit element;

wherein a clock signal of the clock cycle is input to the first scan chain and the second scan chain during testing. (Emphasis added).

Applicant respectfully submits that Masatake does not disclose or suggest at least the feature of each scan chain comprising both positive and negative triggered circuit elements. Specifically, Masatake disclose only one kind of circuit element (i.e., positive triggered flip-flop) in each scan chain (see Fig. 2). As can be seen by Drawings 1 and 2 of Masatake, the flip-flops in chain 11 do not include both positive and negative triggered flip-flops. Because, the claimed invention explicitly requires each scan chain to include both positive and negative triggered circuit elements, which are not disclosed by Masatake. Masatake does not anticipate the claimed invention, and the rejection should be withdrawn.

For at least these reasons, it is respectfully submitted that independent claim 1 is not anticipated by the cited Masatake reference. For at least these same reasons, it is respectfully submitted that independent claim 11, as amended, is likewise not anticipated by this reference.

Since the remaining claims respectively depend from these independent claims, these dependent claims are considered allowable over this reference for at least the same reasons as discussed above.

Claim Rejections Under 35 U.S.C. §103

Claims 8 and 18 were rejected under 35 U.S.C. §103(a) as unpatentable over Masatake (JP 2003-202362).

Claims 6, 9, 16 and 19 were rejected under 35 U.S.C. §103(a) as unpatentable over Masatake in view of Jaramillo et al. ("10 Tips for Successful Scan Design: Part Two", February 17, 2000).

Claims 7, 10, 17 and 20 were rejected under 35 U.S.C. §103(a) as unpatentable over Masatake in view of Jaramillo et al. and Morton (US 2004/0078741).

However, Applicant respectfully traverses these rejections under 35 U.S.C. §103(a) for at least the reasons as set forth above in response to the 35 U.S.C. §102(a) rejections because these

secondary references were not cited and fails to disclose or suggest at least the feature of each scan chain comprising both positive and negative triggered circuit elements.

Since claims 6-10 and 16-20 respectively depend from independent claims 1 and 11, these dependent claims are considered allowable over the cited references for at least the same reasons as discussed above and/or for at least their dependence on the independent claims.

CONCLUSION

Based on the foregoing, all claims are believed allowable, and an allowance of the claims is respectfully requested. If the Examiner has any questions or comments, the Examiner is respectfully requested to contact the undersigned at the number listed below.

To the extent that any arguments and disclaimers were presented to distinguish prior art, or for other reasons substantially related to patentability, during the prosecution of any and all parent and related application(s)/patent(s), Applicant(s) hereby explicitly retracts and rescinds any and all such arguments and disclaimers, and respectfully requests that the Examiner re-visit the prior art that such arguments and disclaimers were made to avoid.

The Commissioner is authorized to charge any fees due in connection with the filing of this document to Bingham McCutchen's Deposit Account No. 50-4047, referencing billing number 7035962001. The Commissioner is authorized to credit any overpayment or to charge any underpayment to Bingham McCutchen's Deposit Account No. 50-4047, referencing billing number 7035962001.

Respectfully submitted,
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